



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,202	01/21/2004	Kia Silverbrook	RRA03US	1355
24011 7590 05/23/2007 SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, 2041 AUSTRALIA			EXAMINER HUFFMAN, JULIAN D	
			ART UNIT 2853	PAPER NUMBER
			MAIL DATE 05/23/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/760,202	Applicant(s) SILVERBROOK, KIA	
	Examiner Julian D. Huffman	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4, 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 depends from cancelled claim 3.

Claims 6 and 7 depend from cancelled claim 5.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7 March 2007 has been entered.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2853

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook (U.S. 20020154189 A1) in view of Katayama et al. (U.S. 5,353,051).

Silverbrook discloses:

With regards to claim 1, an inkjet printer comprising an inkjet printer cartridge, said cartridge (figs. 3 and 9) having a body (fig. 3, the cartridge has a body, 0025, 0051) comprising:

a printing fluid storage for separately storing a set of colored inks (0055, fig. 9, the rectangular portions below the printheads represent the fluid storage), and

a full color pagewidth printhead including at least 20,000 printing fluid delivery nozzles in fluid communication with the printing fluid storage (printhead chips together make up a pagewidth printhead, which is mounted on the cartridge of fig. 3, 0044-0045, 0089, 0090);

wherein said cartridge is configured to be receivable in a complementary cradle having a recess for receiving said inkjet printer cartridge, so that when mated together, said cartridge and said cradle together form an inkjet printer (fig. 7).

With regards to claim 2, a printer cartridge according to claim 1, wherein the printhead includes at least 30,000 printing fluid delivery nozzles in fluid communication with the printing fluid storage (0090).

With regards to claim 4, a printer cartridge wherein the printing fluid storage comprises a collapsible membrane, said membrane defining one or more storage reservoirs for separately storing one or more printing fluids for printing (the reference incorporates by reference several applications and patents, including application number 10/113053, U.S. Patent 6,362,868, which recites in claim 10, ink reservoirs with collapsible membranes).

With regards to claim 6, a printer cartridge wherein the one or more printing fluids includes an ink fixative for facilitating fixing of ink following delivery by said fluid delivery nozzles (0056).

With regards to claim 7, a printer cartridge wherein the one or more printing fluids includes an infrared ink (0056).

Silverbrook also discloses the print cartridge mounted in a recess of a cradle of an inkjet printer (fig. 7). The cradle in which the cartridge is mounted includes control circuitry for controlling the print cartridge (0044, PCB's).

Silverbrook does not expressly disclose a printhead mounted in a replaceable manner, or the printhead cartridge comprising printhead maintenance means for maintaining proper printhead functioning wherein the cradle has a drive means for driving the printhead maintenance means.

However, Katayama et al. discloses a replaceable cartridge, with a printhead and printing fluid storage, mounted in a printer (column 11, lines 41-47) and printhead maintenance means in the cartridge (column 11, lines 48-58, the means for preliminary

ejection is in the cartridge and is controlled by the main printer controller which functions as the drive means).

It would have been obvious to one having ordinary skill in the art to modify the printer cartridge of the above embodiment to be a replaceable printer cartridge and to provide maintenance means, as taught by Katayama et al., for the purpose of enabling the user to easily replace the entire printhead assembly with a new assembly should the old assembly fail and maintaining the printhead in a proper operating state.

Response to Arguments

6. Applicant's arguments filed 5 February 2007 have been fully considered but they are not persuasive.

Applicant argues that the prior art does not teach a replaceable printer cartridge which includes means for printhead maintenance, and a cradle having drive means for driving the printhead maintenance means.

In the combination of Silverbrook and Katayama, Katayama provides the teachings of the replaceable cartridge with means for printhead maintenance by way of ejecting ink not for recording operations. Incorporating the teachings of Katayama in the invention of Silverbrook provides the cradle with the drive means for driving the printhead maintenance means since the controller in the cradle provides the drive signals to drive the printhead maintenance means in the cartridge.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571) 272-2147. The examiner can normally be reached on 10:00a.m.-6:30p.m. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Julian D. Huffman
Primary Examiner
Art Unit 2853
19 May 2007